

CLAIMS

1. A balanced power axoid mechanism comprising power axoid mechanisms having end and intermediate elements provided with support surfaces so constructed and arranged that while one of the end elements is moving there is provided their slideless mutual rolling and imparting the motion and forces therefrom to another end element,
5 CHARACTERIZED in that it is essentially a system of power members each of which comprising at least one power axoid mechanism, and all the end elements are integrated into the driving and driven multi-end elements which in turn integrate the power members into at least one power circuit that balances the forces of said elements.

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15 2. The balanced power axoid mechanism as defined in claim 1, CHARACTERIZED in that it comprises at least one supporting multi-end element accommodating thereinside the driving, driven and whenever necessary, intermediate and supporting multi-end elements which lock up the power members into one or more power circuits that balance the
20 forces thereof.

25 3. The balanced power axoid mechanism as defined in claims 1 and 2, CHARACTERIZED in that it is configured symmetrical with respect to at least one plane with a possibility for any multi-end elements thereof to move symmetrically to said plane.

4. The balanced power axoid mechanism as defined in any one of claims 1-3, CHARACTERIZED in that the area of movement of the geometric axes of the support surfaces of the driving multi-end elements of at least one power circuit thereof is located off the zone defined by the
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parallel planes passing through the geometric axes of the support surfaces of its driven multi-end elements.

5. The balanced power axoid mechanism as defined in any one of claims 1-3, CHARACTERIZED in that the area of movement of the geometric axes of the support surfaces of the driving multi-end elements of at least one power circuit thereof is located between the parallel planes passing through the geometric axes of the supporting surfaces of its driven multi-end elements.

10 6. The balanced power axoid mechanism as defined in any one of claims 1-3, CHARACTERIZED in that the area of movement of the geometric axes of the support surfaces of the driving multi-end elements of at least one of the power circuit thereof is spread on both sides of the respective parallel planes passing through the geometric axes of the support surfaces of its driven multi-end elements.

15 7. An axoid press comprising a frame, power mechanism and other operating members and drives thereof, CHARACTERIZED in that it further comprise at least one balanced power axoid mechanism as defined in any one of claims 1-6.

20 8. The axoid press as defined in claim 8, CHARACTERIZED in that the drive of the power mechanism and of at least one of the remainder operating members thereof is configured as one balanced power axoid mechanism having two driving multi-end elements.

25 9. The axoid press as defined in any one of claims 7-8, CHARACTERIZED in that the power mechanism thereof comprises at least two punches and is capable of performing double-action press-molding procedure.

10. The axoid press as defined in any one of claims
7-9, CHARACTERIZED in that at least one punch of the power
pressing mechanism thereof comprises the pins and the
pressing plate whose motions relative to each other and to
the press frame are provided by at least one power axoid
mechanism as defined in any one of claims 1-6.